

AMENDMENTS TO THE SPECIFICATION:

*Please cancel the current Abstract and replace it with the following new
Abstract:*

A method for determining an equivalent impedance of a transmission section of an electrical network, includes representing the transmission section as having at least two interfaces with other sections of the network. For each interface, a voltage phasor and a current phasor flowing through the interface are determined from simultaneously made measurements at the interfaces. From the phasors, the equivalent impedance is calculated. The required simultaneousness of the phasor measurements is achieved by means of Phasor Measurement Units (PMUs) that are synchronized via the Global Positioning System (GPS).